

AMENDMENT TO THE ABSTRACT OF DISCLOSURE

Please replace the Abstract of the Disclosure with the following paragraph.

ABSTRACT OF THE DISCLOSURE

A defect detection system for thermally imaging a structure that has been energized by a sound energy. The system includes a transducer that couples a sound signal into the structure, where the sound signal causes defects in the structure to heat up. ~~In one embodiment, the sound signal has one or more frequencies that are at or near an eigen mode of the structure.~~ In another one embodiment, a non-linear coupling material is positioned between the transducer and the structure to couple the sound energy from the transducer to the structure. A predetermined force is applied to the transducer and a pulse duration and a pulse frequency of the sound signal are selected so that the sound energy induces acoustic chaos in the structure, thus generating increased thermal energy. A thermal imaging camera images the structure when it is heated by the sound signal.